

1912, and include valuable contributions both on the clinical and experimental sides. The chlorids of the blood are not increased nor are the non-protein nitrogen, urea, uric acid, or creatinin. The formed elements of the blood show little change, though a moderate secondary anemia is usually present. Tests of renal function do not show impairment because there is no obstruction of blood flow in the glomeruli. Changes in the eye-grounds are also lacking. Epstein and Lande found the basal metabolism to be below normal in some instances.

The above, in a brief way, summarizes the salient clinical features of lipid nephrosis in its uncomplicated form. It must not, however, be overlooked that this condition is prone to be complicated, especially in its later stages, by glomerulonephritis. Under these circumstances much of the above clinical picture is modified. It appears to me, nevertheless, that the features presented are sufficiently definite and unique for the justification of regarding lipid nephrosis as a true clinical entity. From the strictly pathologic standpoint, more uncertainty exists, but this is notorious in all efforts to correlate the clinical and pathologic findings in the nephropathies.

The last word pertaining to the underlying pathogenesis of lipid nephrosis has not been said. Many clinicians have been impressed, however, with the views propounded by Epstein,⁵ which are, in brief, that we are dealing with a general metabolic disorder characterized by a perversion in the protein metabolism, possibly comparable in certain respects to the perversion of carbohydrate metabolism in diabetes mellitus. On the other hand, Claussen⁶ has demonstrated the presence in the blood and urine of nephrotic patients, of a substance having a marked physiochemical effect and capable of altering the permeability of membranes. This substance disappears from the blood and urine coincident with a clearing up of sinus infection and the subsequent disappearance of edema. He has also demonstrated in a series of nephrosis cases in children that the serum tension of the blood is diminished. These observations support the hypothesis that the disease affects the whole body, not merely the kidney, and one of its important consequences is a decreased resistance to infection of all sorts.

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Orthopedics

Treatment of Osteomyelitis—The difficulty attendant upon the surgery of osteomyelitis; and the grave prognosis, both as regards life and permanent disability, makes any advance in the

methods of treatment one of widespread surgical interest. The articles recently published by Dr. W. H. Orr deserve a thorough study.

In the journals of *Surgery and Obstetrics* (October 27) and of *Bone and Joint Surgery* of October 27, he outlines in detail the reasoning from which he derived his conclusion, that a rather radical change in treatment in osteomyelitis is justified. To him it seemed that attention was focused wholly on the antiseptic treatment of this disease and that certain fundamentals, such as maintaining position and rest to the injured and infected parts, were as a whole neglected. Most wound complications, he felt, were due to failure to immobilize the inflamed parts, and to secondary infection.

Briefly, the technique worked out by him over a period of about ten years is as follows:

1. Make a fairly large exposure of the infected bone area.
2. Remove all infected bone and saucerize the cavity.
3. Clean out the infected area but be gentle and endeavor not to break down nature's already developed defenses.
4. Wipe out with 10 per cent iodine and follow with 95 per cent alcohol.
5. Pack entire wound wide open, not too tightly, with sterile petrolatum pack, and dress with dry sterile bandages.
6. In chronic cases perform any reasonable manipulation for correction of deformity or position.
7. Apply fixation splint or, preferably, a plaster cast, securing complete immobilization.
8. Do not dress wound at all, or very infrequently, for ten days to four weeks unless evidences of retained sepsis develop.

The results of such treatment were that wounds healed by granulation from the bottom of the wound outwardly. The convalescence was shortened and there was diminished disability. The incidental advantages of this method were many: Infrequent dressings reduced suffering and, therefore, improved the general condition. It allowed all such to be made under direct observation of the surgeon. The savings in labor and materials were no small items.

The author presented a series of forty-seven consecutive cases. Six illustrative cases were given in detail. The chronic and acute cases were about equal in number. There were no deaths. The percentage of cured speaks for itself as regards the value of the methods advocated.

My experience, while necessarily limited, being used for less than a year, has been gratifying. The surgical profession as a whole, and orthopedic surgeons in particular will, I feel, approach the problem of osteomyelitis with renewed enthusiasm when the value of these contributions by Orr is realized.

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